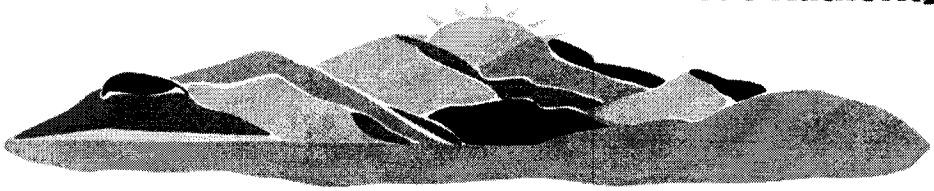
California Regional Water Quality Control Board
Santa Ana Region

November 5, 2004

ITEM: 13

SUBJECT: **Lake Elsinore and San Jacinto Watershed Authority (LESJWA) – Overview of Activities and Projects**

Lake Elsinore & San Jacinto Watersheds Authority



City of Lake Elsinore • City of Canyon Lake • County of Riverside
Elsinore Valley Municipal Water District • Santa Ana Watershed Project Authority

The Lake Elsinore & San Jacinto Watersheds Authority (LESJWA) is a joint powers authority formed in April 2000 to develop comprehensive, long-term strategies for improving water quality and protecting wildlife habitats in a 700-square mile area that stretches from the San Jacinto Mountains to Lake Elsinore.

The LESJWA Board of Directors is comprised of representatives from each member agency. The current LESJWA Board of Directors is:

Robert Schiffner, Chairman – City of Lake Elsinore
Al Lopez – Santa Ana Watershed Project Authority
Bob Buster – County of Riverside
Jack Wamsley – City of Canyon Lake
Phil Williams – Elsinore Valley Municipal Water District

Mark Norton – Authority Administrator

LESJWA is funded primarily by a $15 million allocation from the California Safe Drinking Water, Watersheds Protection and Flood Protection Bond Act of 2000. LESJWA has also received a $475,000 grant from the U.S. Environmental Protection Agency for water quality monitoring. An additional $200,000 in additional Prop 13 funding was allocated to LESJWA in May 2001 for development of a San Jacinto Watershed Management Plan.

Since April 2000, LESJWA has conducted several major studies and plans utilizing the following leading lake management experts:

Dr. Michael A. Anderson, University of California, Riverside - Department of Environmental Sciences.
Dr. Arlo Fast, Michigan State University - Limnology and fisheries.
Dr. Dennis Cooke, Kent State University, Ohio - Professor Biological Sciences.
Dr. Alexander Horne, University of California, Berkeley - Department of Civil and Environmental Engineering.
Dr. Ellie Prepas, Lakehead University, Ontario, Canada.

Major studies conducted or underway include the following:

- Canyon Lake Feasibility Study by Dr. Alex J. Horne
- Environmental Impact Report (EIR) by HDR, Inc. for biomanipulation (fish harvesting) and chemical addition in Lake Elsinore
- NPDES Permit Study for discharge to Lake Elsinore by Montgomery Watson Harza.
- Program EIR for Lake Elsinore Improvements by Montgomery Watson Harza
- Lake Replenishment Level Alternative Analysis for Lake Elsinore by Tetra Tech.
- Nutrient Removal Study by CH2M Hill, Inc.
- Long Term Revenue Plan by Harris & Assoc.
- Metal Salts Addition by EIP Assoc.
- San Jacinto Watershed Management Plan by Tetra Tech Inc. and Pat Boldt
- Fishery Management Plan by EIP Assoc.

11615 Sterling Avenue - Riverside, CA 92503 - Phone 909-785-5411 - Fax 909-352-3422
www.mywatersheds.com

- Education and Outreach Program with O'Reilly Public Relations
- Zooplankton/Aeration Monitoring by Dr. Michael Anderson, UCR
- Sediment Coring by University of California, Berkeley
- Aeration Studies for Lake Elsinore and Canyon Lake by Dr. Arlo Fast
- Evaluation of Calcium Treatment for Lake Elsinore by Dr. Ellie Prepas
- Removal of Dissolved Phosphorus using Calcium by Dr. Michael Anderson
- Response to Alum Questionnaire by Dr. Dennis Cooke
- Impacts of Alum Addition on Lake Elsinore Water Quality by Dr. Michael Anderson
- Canyon Lake Sedimentation Study by HDR
- EIR for Dredging and Aeration in Canyon Lake by HDR
- Lake Elsinore and Canyon Lake Nutrient Source Assessment by Tetra Tech.

Major implementation projects underway:

Watershed and Lake Monitoring – Installed 10 new stream gauging stations in watershed. Since 2001, LESJWA has conducted water quality monitoring for watershed, Lake Elsinore, and Canyon Lake to support TMDL analysis and development

Lake Elsinore Carp Removal – Have removed over 1 million pounds of carp from Lake Elsinore. Carp are the fish responsible for stirring up nutrients on the lake bottom, which can cause algae blooms and ultimately lead to fish kills.

Island Well Pump Station Improvements – Produces 1.6 billion gallons of water annually, to help stabilize Lake Elsinore lake levels, enhance fish and wildlife habitats and improve recreation opportunities.

Experimental Striped Bass Stocking – Striped bass in Lake Elsinore will prey on carp and shad, the fish that disrupt lake water quality and cause algae blooms, which can lead to fish kills.

Lake Elsinore Destratification System – Increases oxygen levels, improves water quality and reduces algae growth, which lead to fish kills.

Canyon Lake Dredging Project – Removes excess sediment from Canyon Lake and improves water quality for recreational use.

Future Projects:

Lake Elsinore Lake Mixing System, Phase II – Will be instrumental in decreasing algae by generating and moving oxygen rich surface water into lower depths.

Recycled Water Nutrient Removal – Removes excess nutrients from recycled water being added to Lake Elsinore, improving water quality and stabilizing the lake level.

Fishery Management Enhancements – Ensures a balanced and improved fishery at Lake Elsinore that will offer greater recreational opportunities and improved water quality.